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CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

COUNTRY USSR

SUBJECT Armed Forces Supplied with Field Telephone and Telegraph Cables by the 'Sevkabel' plant in Leningrad/Technical Qualities/Insulating Cover/Improved Cable Layer for Rapid Laying of Underground Cables/Description of New Cable Layer

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THIS IS **UNEVALUATED** INFORMATION

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1. "My information dates through late July 54.

2. "The Leningrad plant 'Sevkabel' supplies the armed forces of the USSR with field telephone and telegraph cables with technical specifications as follows:

Designation	Current-conductors copper	steel	Insulation	Outside diameter kg/km	Weight kg/km.	Ohmic resistance Ohm/km.
PTF-7 PTF-8 PTF-3 x 2	2 x 0.3	5 x 0.3	rubber	3	13.2	110
PTF-7 x 2 PTF-8 x 2	2 x 0.3	5 x 0.3	rubber	6	27	220
PTG-6	1 x 0.51	5 x 0.4	"	4.4	28	45
PTG-7	1 x 0.41	5 x 0.4	"	4.3	27	45
PTG-19	7 x 0.25	12 x 0.25	"	4.4	27	45
RTG	7 x 0.5		"	7.5	110	14
ORTF	2 x 0.5	5 x 0.4	'chlorovinil'	4.3-5.3	40-45	55
MRK-1 x 4	4 x 0.3	3 x 0.3	"	11	150	52
LTFK	1 x 0.28	6 x 0.2	"	2	6	250

3. "In recent years 'chlorovinil' (or chlorvinil) has been used as insulating material for field cables instead of rubber. Composition is as follows:

Resin (pitch?)	59.5%
Dibutylphthalate	20.9%
Savol	8.9%
Golowax	8.9%
Calcium stearate	1.8%

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Quality:

Tensile strength	190-210 kg/cm^2
Disintegration temperature	+ 186° C
Resistance to cold	- 40° C

4. "In the Soviet armed forces, field cables are usually laid 'underground'. For rapid underground laying, 'Brodski's improved cable layer' (oblegchenny kabeleukladchik Brodskogo) is used. This cable-layer is a 'one-axle trailing steel frame with digger' and may be attached to any tractor, tank, etc.

5. "The digger mounted under the steel frame is equipped with a tube through which the cable falls to the bottom of the slit. On the frame there is a drum for the cable rolls.

6. "When the cable-layer moves, the cable is unrolled from the drum and falls through the tube of the digger onto the bottom of the slit. The speed of laying is determined by the speed of movement of the towing tractor or tank.

7. "Diggers of the latest models of cable-layers cut a slit 70-80 cm. in depth into the ground.

8. "The cable-layer does not throw out any earth onto the surface of the ground. The slit and torn ground are hidden by the passage of the caterpillar of the tractor. The only thing that remains visible on the ground is the track of the caterpillar.

9. "Whenever the digger meets an obstacle in the earth which it cannot cut, the 'protective appliance connecting the digger to the frame' automatically releases the digger from the frame of the cable-layer. The digger with the cable remains in the earth in front of the obstacle while the tractor with the frame attached to it moves on. It is then easy to remove the digger from the slit and and lay the cable by hand around the obstacle. Thereafter, a hole is dug, and the digger placed in it. When this is done, the digger with the cable is again connected to the frame and can continue its work. The cable-layer is provided with a device which rings an electric bell whenever the veins of the cable are broken. The most suitable speed of laying a cable is four km. per hour. The cable layers are not adapted for use in rocky and stony ground".

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